

# Work Order ID 53817

November 18, 2009 2:59:37 PM



Page 1

Item ID: D4010-1

Accept



Setup Start



Revision ID:

Item Name: Bearpaw

Stop



Start Date: 11/18/2009 Start Qty: 9.00



Cust Item ID:

Required Date: 11/25/2009 Req'd Qty: 9.00



Customer:

Reference:

Approvals: Process Plan: MMF

Date: 09-11-19

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D4010

C

100

0.00



HAND FINISHING THERMOFORMING

Thermoform

Memo

0.00

Thermoforming Machine

Cut Blanks to fit frame size

B 09/11/20  
X 9+1

110

0.00



THERMOFORMING MACHINE

Thermoform

Memo

0.00

Thermoforming Machine

Thermoform as per Dwg. D4010-1 and Folio FTA067 temp using tool DT 9540

Dwg. Rev. C

Folio Rev. B

9 1 B 09/11/20

120

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

Visually inspect for proper formation of each part

9 B 09/11/20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 53817

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Cust Item ID:

Required Date: 11/25/2009 Req'd Qty: 9.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC8- Inspect parts - second check	0.00							
QC	Memo	0.00							
Quality Control									
140	HAND FINISHING THERMOFORMING	0.00							
Thermoform	Memo	0.00							
Thermoforming Machine	Trim to Finished Dimensions as per dwg D4010-1								
	Drill as per jig PT 9542, Beginning at point 0-0								
150	QC2- Inspect parts off machine FAI/FAIB	0.00							
QC	Memo	0.00							
Quality Control	Check dimensions to ensure conformity to drawing tolerances.								

09/11/20 (29)

PTO  
09/11/23

X9

09/11/23

X9

09/11/24 (29)

W/O: 53817		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
09/11/24	140.	DRILL - wear plate holes using DT 2542. D4010-041 + D4010-1 routings will be adjusted to correct this.	Wh.	09/11/24	9	09.11.24	09/11/24

Part No: D4010-1 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Work Order ID 53817

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Item ID: D4010-1

Accept



Setup Start



Revision ID:

Item Name: Bearpaw

Stop



Start Date: 11/18/2009 Start Qty: 9.00



Cust Item ID:

Required Date: 11/25/2009 Req'd Qty: 9.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

27 502/11/24



170

Identify as per dwg & Stock Location: TH2406000000

0.00



Packaging

Memo

0.00

Packaging

09/11/24 X9

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/11/24

ME 09-11-24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 1

Work Order ID: 53817



Parent Item: D4010-1



Parent Item Name: Bearpaw

Start Date: 11/18/2009

Required Date: 11/25/2009

Comments: IPP Rev B 09/11/03 Drawing changed to accomidate OEM and Dart Skidtube.  
DL. Verified by:DD.

Start Qty: 9.00

Required Qty: 9.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M-ALXTRAB-S.300		Purchased	No			100	sf	1,065.611	67.3011			

Alextra ET 0 .300 sheet

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

MAT

113108

1065.6112

1065.6112

10

09/11/20 BB

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DART AEROSPACE LTD		Work Order:	53817
Description:		Part Number:	04010-1
Inspection Dwg: D4010-1 Rev: C		Page 1 of 1	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

#### THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than <u>N/A</u> "				
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

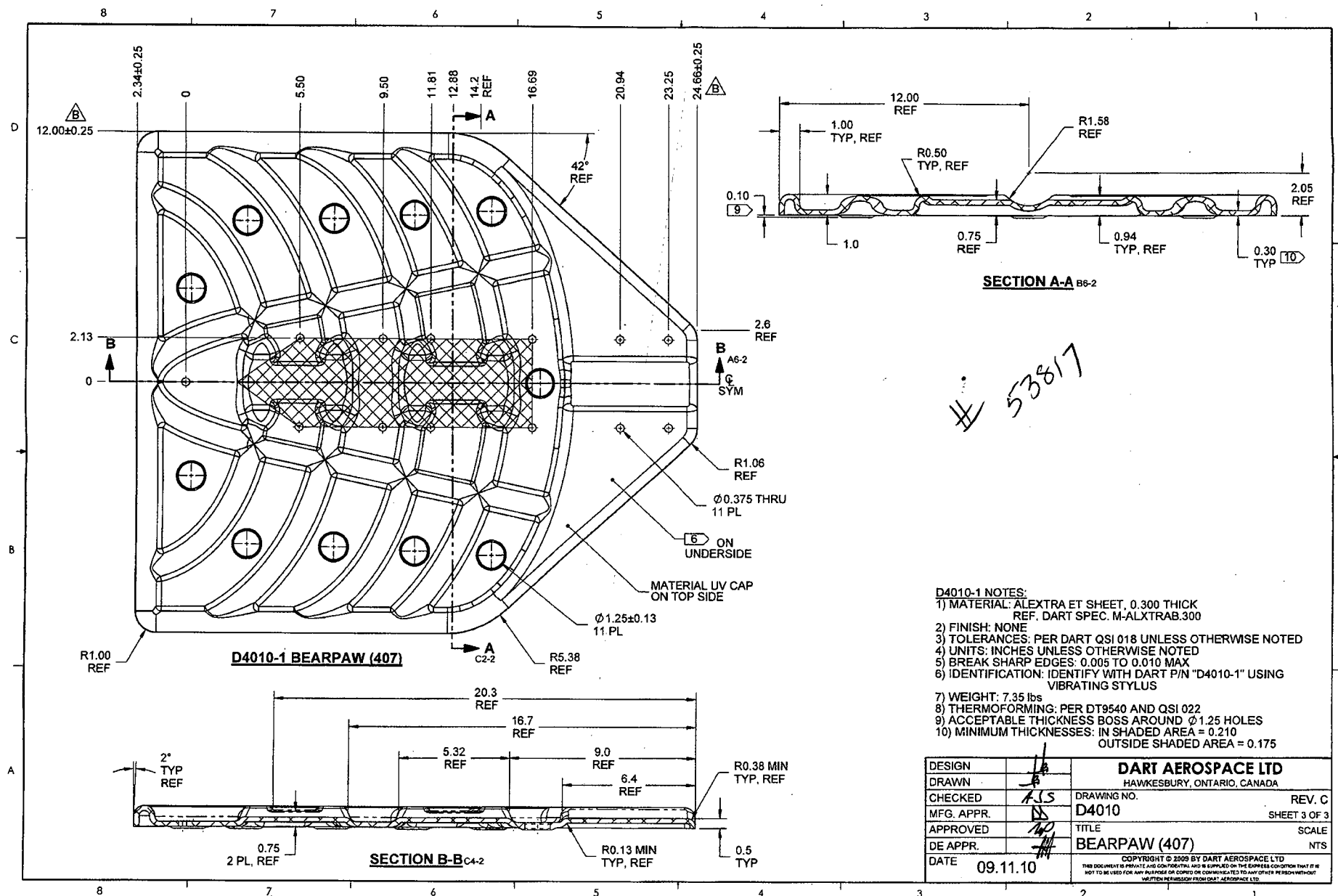
Measured by:	Date:
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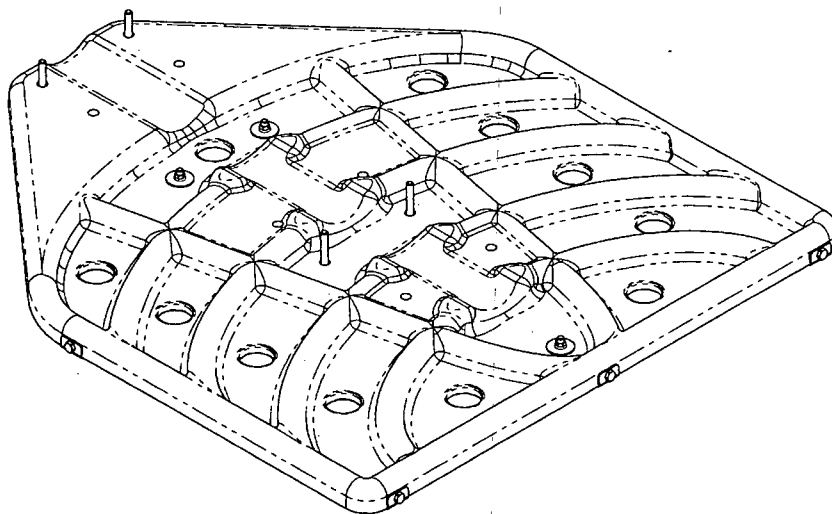
#### TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.0"	± 0.100"	1.00"	✓			
Ø 1.25"	± 0.13"	Ø 1.27"	✓			
Ø 0.375"	± 0.037"	Ø 0.37"	✓			

Measured by:	Date:
Audited by:	Date:
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/DL	





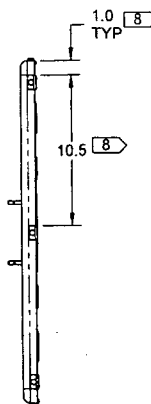
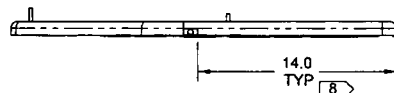
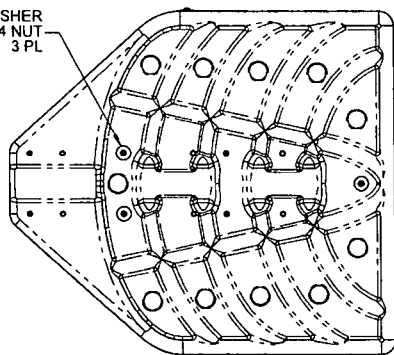
**D4010-041 BEARPAW ASSEMBLY (407)**

53817

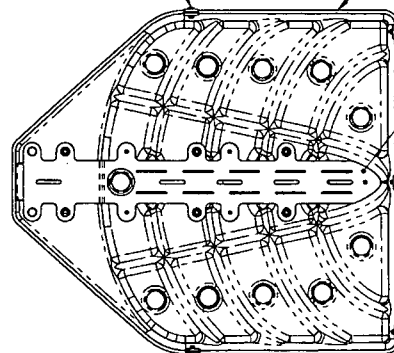
**RELEASED**  
2009-11-26  
NTS

C	OPTIMIZED DESIGN BASED ON FUNCTIONALITY AND TO EASE MANUFACTURING	MB	09.11.10
B	REDESIGNED: ADDED PROVISIONS FOR COMPATIBILITY WITH OEM SKIDTUBES/SADDLES; REDEFINED SOME TOLERANCE	MB	09.11.02
A	NEW ISSUE	MB	09.10.22
REV.	DESCRIPTION	BY	DATE
DESIGN	DESIGNED BY	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	DRAWN BY		
CHECKED	CHECKED BY	DRAWING NO.	REV. C
MFG. APPR.	MFG. APPR. BY	D4010	SHEET 1 OF 3
APPROVED	APPROVED BY	TITLE	SCALE
DE APPR.	DE APPR. BY	BEARPAW (407)	NTS
DATE	09.11.10	<small>COPYRIGHT © 2009 BY DART AEROSPACE LTD  THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

D3456-1 WASHER  
MS21043-4 NUT  
3 PL



AN3C5A BOLT  
D4015-041 WEARBAR  
MS21043-3 NUT



AN3C5A BOLT  
D4015-041 WEARBAR  
MS21043-3 NUT

D4010-1  
BEARPAW

AN3C5A BOLT  
D4015-041 WEARBAR  
MS21043-3 NUT

D4013-041 WEARPLATE  
ASSEMBLY

AN3C5A BOLT  
D4015-041 WEARBAR  
MS21043-3 NUT

AN3C5A BOLT  
D4015-041 WEARBAR  
MS21043-3 NUT

**D4010-041 BEARPAW ASSEMBLY (407)**

ITEM	QTY -041	P/N	DESCRIPTION
1	X	D4010-041	BEARPAW ASSEMBLY (407)
3	3	D3456-1	WASHER
4	1	D4010-1	BEARPAW
5	1	D4013-041	WEARPLATE ASSEMBLY
6	5	D4015-041	WEARBAR
21	5	AN3C5A	BOLT
22	5	MS21043-3	NUT
23	3	MS21043-4	NUT

#### D4010-041 NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 9.41 lbs
- 8) LOCATE D4015-041 (ITEM 5) AS SHOWN AND TRANSFER DRILL  $\varnothing 0.191$ " HOLE FROM D4015-041 TO D4010-1 BEARPAW AND FASTEN USING PRESCRIBED HARDWARE.
- 9) TORQUE: AN3 NUTS = 15-20 in-lb  
AN4 NUTS = 50-70 in-lb

DESIGN	1	<b>DART AEROSPACE LTD</b>	
DRAWN	1	HAWKESBURY, ONTARIO, CANADA	
CHECKED	1	DRAWING NO.	REV. C
MFG. APPR.	1	D4010	SHEET 2 OF 3
APPROVED	1	TITLE	SCALE
DE APPR.	1	BEARPAW (407)	NTS
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**RELEASED**  
2009-11-24

